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Great Britain. Parliament. Comm.
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of the mail coach roads. *July 1821*
GENERAL RULES

FOR

REPAIRING ROADS

RECOMMENDED, BY THE
PARLIAMENTARY COMMISSIONERS

FOR THE

IMPROVEMENT OF THE MAIL COACH ROAD FROM LONDON,
BY COVENTRY, TO HOLYHEAD,

TO THE

TURNPIKE TRUSTEES BETWEEN LONDON AND
SHREWSBURY.

ILLUSTRATED WITH A PLATE.

FOURTH EDITION.

LONDON:

PUBLISHED BY J. TAYLOR,

AT THE ARCHITECTURAL LIBRARY, 59, HIGH HOLBORN,

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Map

GENERAL RULES

FOR

REPAIRING ROADS.

I. SHAPE, OR CROSS SECTION.

Rule 1.—Upon a road of 30 feet in width, the sides should be 9 inches below the surface in the middle. The best line of the cross section, is a segment of a flat ellipsis; this shape not only assists the water to pass from the centre towards the sides, but greatly contributes to the drying of the road, by allowing the action of the sun and air to produce a great degree of evaporation. Surveyors ought to use a level (see plate) in giving roads a proper shape, in order that the surface may be of one uniform curvature, without the smallest deviation, in any one spot, from the prescribed line of the cross section.

II. DRAINAGE.

Rule 2.—All ditches ought to be on the field side of the road fences, and to be connected with the natural water-courses of the country. The stone drains, and culverts, which cross under the road, should be

numerous, and continued through the fences into the ditches.

In order to keep a road perfectly dry, openings of mason-work should be made from the side drains of the road, into all these cross-drains, to carry off the water collected from the surface of it. The bottoms of the cross-drains must be well paved, particularly at these openings.

It ought never to be forgotten, that in order to have the surface of a road perfect, it must be kept completely dry.

All land springs out to be carried from the site of the road by under-draining.

III. TREES AND FENCES.

Rule 3.—It is absolutely necessary to remove trees from the sides of roads, and to keep the fences under 5 feet in height. Not less than 20 per cent of the expense of repairing roads is incurred by the trees, and the improper state of the fences, keeping the roads wet, and by that means occasioning the rapid destruction of the materials.

IV. MATERIALS.

Rule 4.—Where the materials are quarry or field stones, the hardest part of them only should be used. Each stone should be so broken that it may, in its largest dimension, pass through a ring of $2\frac{1}{2}$ inches in diameter. Hammers, with slender handles, light,



and well steeled, must be made on purpose for breaking them. This work ought always to be done by measure, either at the quarries, or in proper recesses made for the purpose on the sides of the road. Men who are past hard labour, and women and boys, may be employed upon the last operation, in breaking them small.

Rule 5.—Where the materials consist of gravel, the stones only which exceed $1\frac{1}{2}$ inch in size, should be taken from the pits for the use of the middle part of the road. These ought to be raked together as the gravel is thrown up by the workmen. This process will, in most cases, save the expense of riddling and washing the gravel. All the smaller stones and gravel may be used for the sides of the road, and the footpaths. The large gravel stones ought to be properly broken, either at the pits, or in the aforesaid recesses. Surveyors should pay very particular attention to this rule, because the common use of a mixture of round gravel and clay is a public nuisance, and must be got rid of. Where a Surveyor obstinately persists in this practice, the Trustee should dismiss him.

V. DISPOSITION OF MATERIALS.

Rule 6.—1. Where a road has no solid and dry foundation, it must be constructed anew. Upon the 18 centre feet of it ~~stones~~ must be put, forming

a layer 7 inches deep. Soft stones will answer, or cinders, particularly where sand is prevalent. These bottoming-stones must be carefully set by hand, with the broadest end down, in the form of a close neat pavement; the cavities should be filled with stone chips, to make all level and firm, and no stone should be more than 5 inches broad on its face. Over this bottoming of stones, or cinders, 6 inches of stones, of a proper quality, broken of a size that will, in their largest dimensions, pass through a ring of $2\frac{1}{2}$ inches in diameter, must be laid. The 6 feet of the road, on each side of the 18 centre feet (making 30 feet), when formed of a proper shape, may be covered with 6 inches of good clean gravel, or small stone chips.

2. Where a road has some foundation, but an imperfect one, or is hollow in the middle, all the large stones appearing on the surface of it must be raised and broken, the 18 centre feet of it must then be covered with a coating of broken stones, sufficient to give it a proper shape, and to make it solid and hard.

3. Where a road already has a good foundation, and also a good shape, no materials should be laid upon it but for the purpose of filling ruts and hollow places, in thin layers, as soon as they appear. Stones broken small, as above described, being angular, will fasten together. In this way a road, when once well made, may be preserved in constant repair at a small expense.

4. Where the breadth of that part of a road, which alone has been formed of hard materials, and over

